

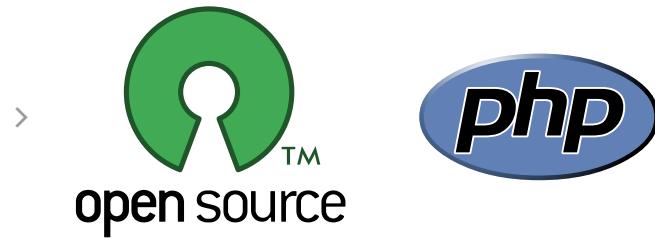
LARAVEL 101

Winnipeg PHP Meetup - March 26, 2014



COLIN VIEBROCK

- › Freelance Web Developer/Designer
front and back-end
- › Involved in PHP since 1997
with a few years off for good behaviour
- › Founder of **Green Garage**, **Prestoh** & **easyDNS**



- › @cviebrock at **Github** and **Twitter** ... also on **LinkedIn**

LARAVEL

A free, open source, MVC web-application framework

2011 (v1.0) — current (v4.1.24)

Package-based dependency management

 laravel.com

A close-up photograph of a person's legs and feet. They are wearing red and white low-top sneakers with white laces. The person is sitting on a textured, light-colored carpet, and their hands are visible as they tie the laces of the shoe on the right. The left shoe's lace is partially visible.

GETTING STARTED

PREREQUISITES

- > PHP 5.4.x
- > Mcrypt extension
- > JSON extension
- > Composer

 getcomposer.org and install it globally!



IBM 3

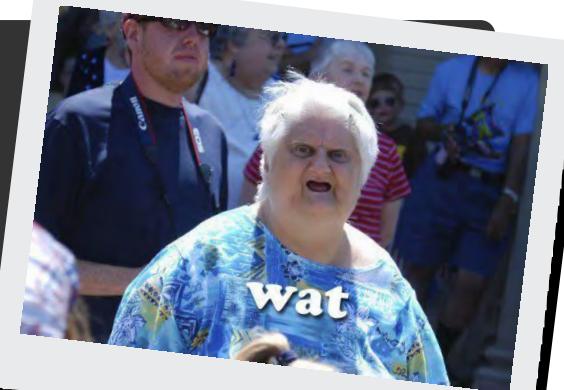
YOUR FIRST PROJECT

STARTING A NEW PROJECT

```
composer create-project laravel/laravel my-project --prefer-dist
```

```
git clone git@github.com:laravel/laravel.git my-project  
cd my-project  
composer install
```

```
curl -L -o https://github.com/laravel/laravel/archive/master.zip  
unzip master.zip  
mv laravel-master my-project  
cd my-project  
composer install
```





GIT IT UNDER CONTROL

I see what you did.



A close-up photograph of a wooden filing cabinet with several drawers. The drawers have metal handles and small metal labels. One label is clearly visible, reading "BOW CO. 13 TRPT".

PROJECT STRUCTURE



PROJECT FOLDERS

- 📁 **app** < your stuff
- 📁 **bootstrap** < startup stuff
- 📁 **public** < static stuff: img, js, css, etc.
- 📄 **composer.json** < other people's stuff you want
- 📁 **vendor** < other people's stuff



APPLICATION FOLDERS

- 📁 app
 - 📁 commands
 - 📁 config
 - 📁 controllers
 - 📁 database
 - 📁 lang
 - 📁 models
 - 📁 start
 - 📁 storage
 - 📁 tests
 - 📁 views
- 📄 filters.php
- 📄 routes.php



A composite image. On the left, a landscape painting by Bob Ross depicts a majestic snow-capped mountain range under a bright blue sky with wispy clouds. In the foreground, there's a body of water and a variety of trees showing autumn colors. On the right, a portrait of Bob Ross is shown from the chest up. He has his signature large, curly reddish-brown hair and a full, bushy beard and mustache. He is smiling warmly at the camera. He is wearing a light-colored, button-down shirt. His right hand is resting on the edge of a dark wooden easel, and his left hand holds a paintbrush. The overall composition is a blend of his artwork and his personal image.

ARTISAN

ARTISAN

Command line tool to make working with Laravel easier.

```
php artisan
```



BUILT-IN SERVER

```
php artisan serve --port 8000
```





ROUTING



BASIC ROUTING

```
Route::get('/', function() {  
    return 'Hello World!';  
});
```

app/routes.php



ROUTE PARAMETERS

app/routes.php

```
Route::get('/hello/{name?}', function($name='stranger')
{
    return 'Hello, ' . e($name);
})->where('name', '[A-zA-Z]+');
```



LISTING ROUTES

```
php artisan routes
```





CONTROLLERS

CONTROLLER ROUTING

```
Route::get('hello/{name?}', 'HelloController@showWelcome');
```

 app/routes.php

```
class HelloController extends BaseController {

    public function showWelcome($name='stranger')
    {
        return 'Hello, ' . e($name) . '!';
    }
}
```

 app/controllers/HelloController.php



RESTFUL CONTROLLERS

```
Route::controller('users', 'UsersController');
```

 app/routes.php

```
class UsersController extends BaseController {

    public function getIndex() {
        // GET http://domain.com/users
    }

    public function postProfile() {
        // POST http://domain.com/users/profile
    }
}
```

 app/controllers/UsersController.php



RESOURCE CONTROLLERS

```
php artisan controller:make PostsController
```

```
Route::resource('posts', 'PostsController');
```

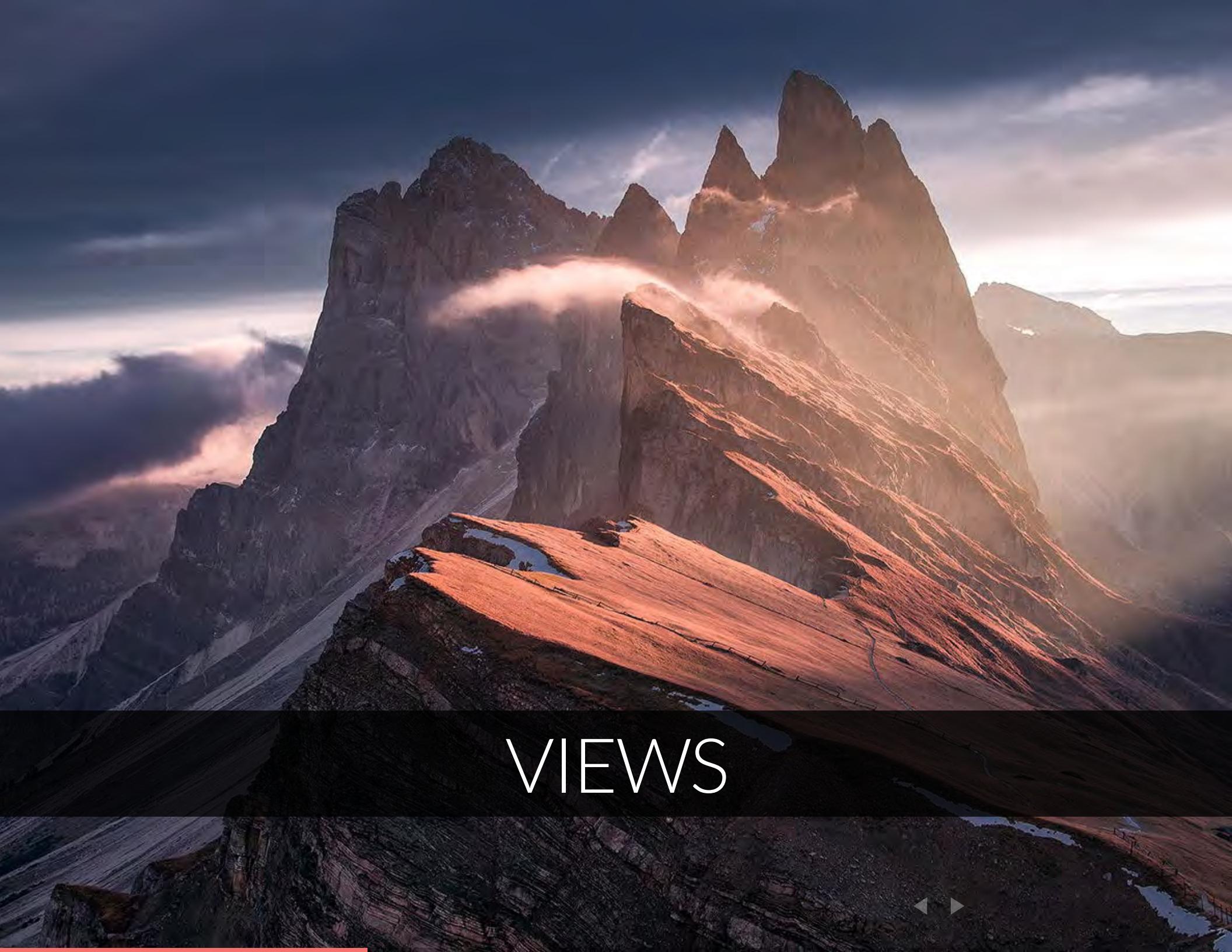
 app/routes.php

```
class PostsController extends BaseController {  
  
    public function index() {}  
    public function create() {}  
    public function store() {}  
    public function show($id) {}  
    public function edit($id) {}  
    public function update($id) {}  
    public function destroy($id) {}  
  
}
```

 app/controllers/PostsController.php

```
php artisan routes
```





VIEWS



PASSING DATA TO VIEWS

```
class HelloController extends BaseController {  
  
    public function showWelcome($name='stranger')  
    {  
        return View::make('hello', compact('name'));  
    }  
}
```

app/controller/HelloController.php

```
<html>  
  <body>  
    <p>Hello, <?php echo e($name); ?>!</p>  
  </body>  
</html>
```

app/views/hello.php



A black and white promotional image for the movie Blade. Wesley Snipes as Blade is shown from the waist up, wearing his signature dark leather suit and sunglasses. He is holding a large, ornate sword vertically in front of him. The background is dark and moody.

BLADE TEMPLATING

OUTPUTTING DATA

```
<html>
  <body>
    // echo and escape output
    Hello {{ $name }}!  Hello {{{ $html }}}!
  </body>
</html>
```

app/views/VIEWNAME.blade.php



IF STATEMENTS

```
@if( $name=='Bob' )
    Good to see you, Bob!
@elseif( $name=='Mary' )
    Howya doing, Mary!
@else
    Hey, where did Bob go?
@endif

@unless( $signed_in )
    You are not signed in.
@endunless
```

app/views/VIEWNAME.blade.php



LOOPS

```
@for ($i = 0; $i < 10; $i++)
    The current value is {{ $i }}
@endfor

@foreach ($users as $user)
    <p>This is user {{ $user->id }}</p>
@endforeach

@while (true)
    <p>Make it stop!</p>
@endwhile
```

app/views/VIEWNAME.blade.php



LAYOUTS

```
<html>
  <body>
    @include('header')  {{-- app/views/header.blade.php --}}


    @section('sidebar')
      This is the master sidebar.
    @show

    <div class="container">
      @yield('content', 'Default content')
    </div>
  </body>
</html>
```

app/views/layouts/master.blade.php

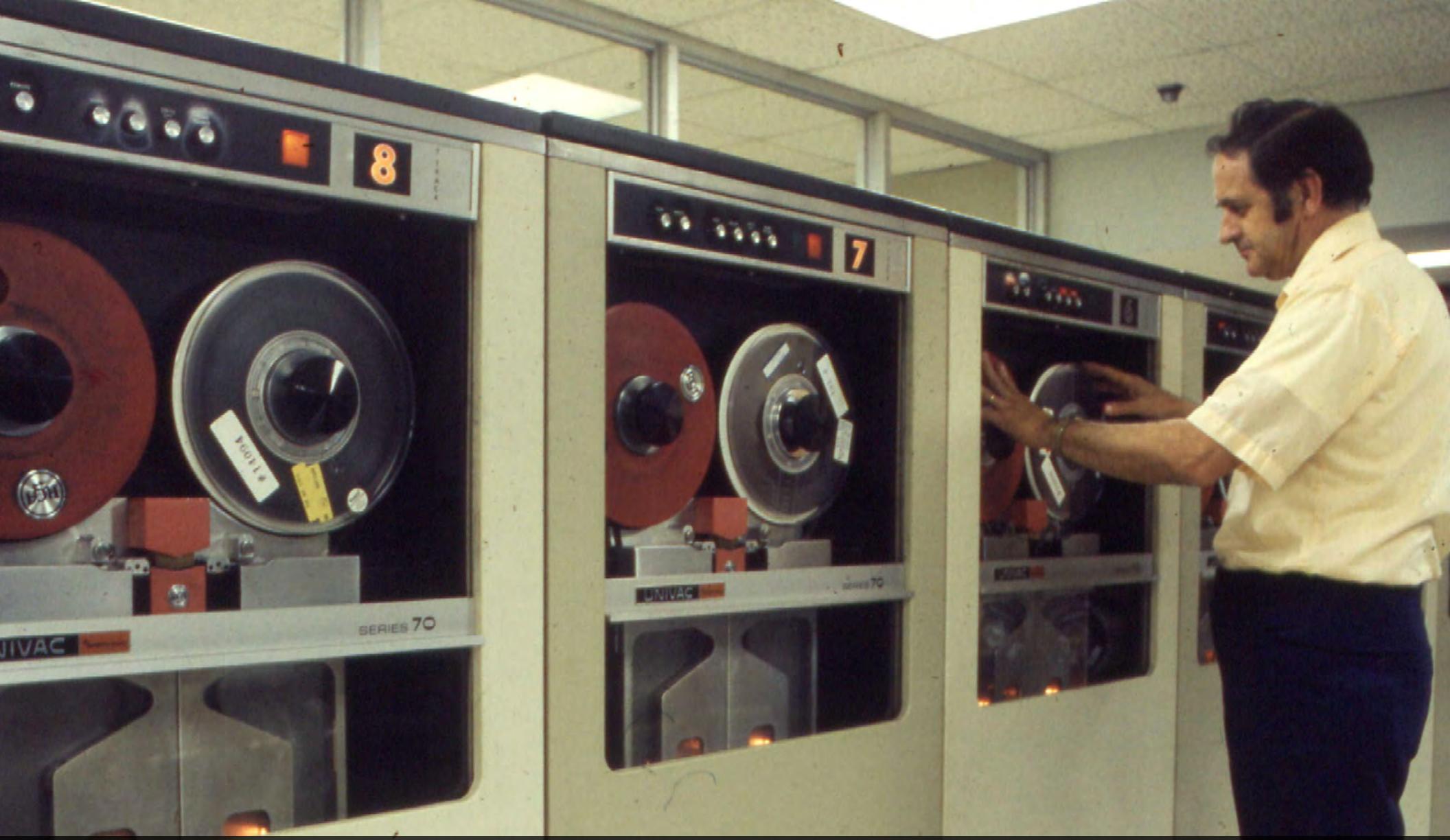
```
@extends('layouts.master')

@section('sidebar')
  @parent
  <p>This is appended to the master sidebar.</p>
@stop

@section('content')
  <p>This is my body content.</p>
@stop
```

app/views/VIEWNAME.blade.php





DATABASE

SUPPORTED DATABASES

Out-of-the-box support for:

- > MySQL
- > Postgres
- > SQLite
- > SQL Server

CONFIGURATION

```
return array(
    'default' => 'mysql',

    'connections' => array(
        'mysql' => array(
            'driver'      => 'mysql',
            'host'        => 'localhost',
            'database'   => 'my-project',
            'username'   => $_ENV['MYSQL_USER'],
            'password'   => $_ENV['MYSQL_PASS'],
            'charset'    => 'utf8',
            'collation'  => 'utf8_unicode_ci',
            'prefix'     => '',
        ),
    ...
)
```

app/config/database.php



SECRET ENVIRONMENT VARIABLES

```
return array(  
    'MYSQL_USER' => 'dbuser',  
    'MYSQL_PASS' => 's3cReT_pa5w0rD',  
);
```

.env.php



The background of the image is a dense, dark mass of bird silhouettes against a bright, overexposed sky. The birds are scattered across the frame, creating a sense of immense activity and movement.

MIGRATIONS

PREPARING

```
php artisan migrate:install  
php artisan migrate:make create_posts_table --create="posts"
```



MIGRATION FILE

```
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Database\Migrations\Migration;

class CreatePostsTable extends Migration {

    /**
     * Run the migrations.
     *
     * @return void
     */
    public function up()
    {
        //
    }

    /**
     * Reverse the migrations.
     *

```

app/database/migrations/##_create_posts_table.php



SCHEMA BUILDING

```
public function up()
{
    Schema::create('posts', function(Blueprint $table) {
        $table->increments('id');
        $table->string('title', 50);
        $table->text('text')->nullable();
        $table->boolean('active')->default(true);
        $table->timestamps(); // created_at and updated_at
    });
}
```

```
public function down()
{
    Schema::drop('posts');
}
```



RUN MIGRATIONS

```
php artisan migrate
```

OOOPS!

```
php artisan migrate:rollback
```





MODELS

ELOQUENT

```
class Post extends Eloquent {}
```

app/models/Post.php



CREATE A NEW MODEL

```
$post = Post::create(  
  array(  
    'title' => 'My First Post',  
    'text'   => 'Lorem ipsum dolor sit amet, consectetur adipisicing elit',  
    'active' => true,  
  )  
)
```



RETRIEVING

```
$post = Post::find(1);
```

```
$post = Post::findOrFail(1);
```

```
$posts = Post::where('id', '>', 3)->get();  
$post = Post::where('title', 'LIKE', 'laravel')->first();
```

```
$posts = Post::all();
```



USING

```
$post = Post::find(1);  
  
echo $post->title;  
echo $post->created_at;      // uses Carbon package for date handling
```

```
$posts = Post::all();  
  
foreach( $posts as $post )  
{  
    echo $post->title;  
}
```



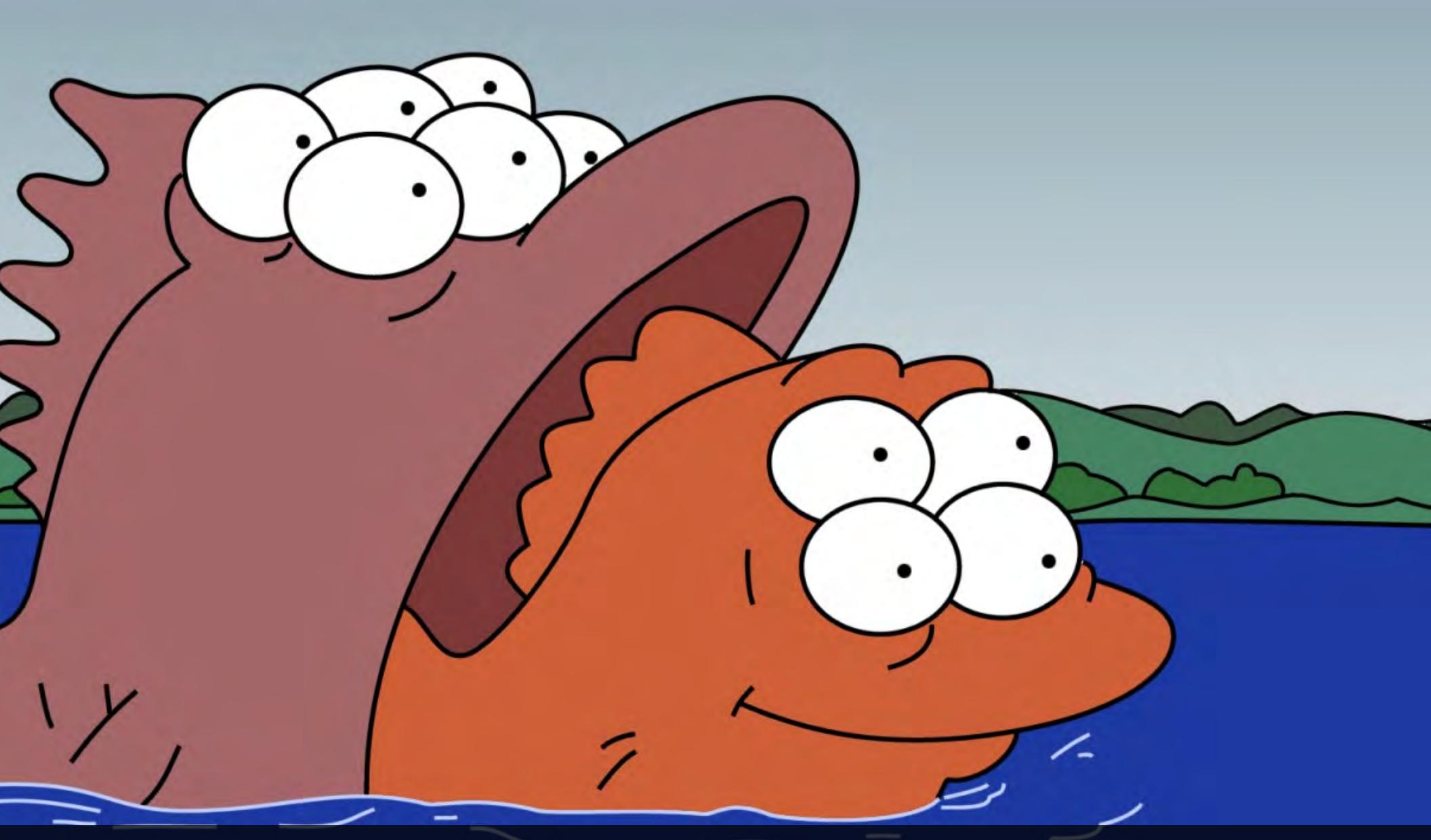
DELETING

```
$post = Post::find(1);
$post->delete();
```

```
Post::destroy(1);
Post::destroy(1,2,3);
```

```
$lastWeek = Carbon::now()->subWeek();
Post::where('created_at', '<', $lastWeek)->delete();
```





ACCESSORS & MUTATORS

ACCESSORS

```
class Post extends Eloquent {  
  
    public function getTitleAttribute($value)  
    {  
        return ucwords($value);  
    }  
  
}
```

```
$post = Post::create(array(  
    'title' => 'my first post'  
));  
  
echo $post->title;           // "My First Post"
```



MUTATORS

```
class Post extends Eloquent {  
  
    public function setTextAttribute($value)  
    {  
        $value = trim($value);  
        $this->attributes['text'] = $value;  
  
        // not limited to modifying the one attribute  
        $this->attributes['excerpt'] = substr($value,0,97) . '...';  
    }  
}
```



A woman with long blonde hair is sitting at a table, covering her eyes with her hands. In the background, a man and a woman are standing and arguing. The woman is holding a small child. The scene suggests a family conflict.

RELATIONSHIPS

ONE-TO-ONE

```
class Comment extends Eloquent {  
  
    // comments table has an `author_id` field  
  
    public function author()  
    {  
        return $this->hasOne('Author');  
    }  
  
}
```

```
$author = Comment::find(1)->author;
```



INVERSE

```
class Author extends Eloquent {  
  
    // authors table needs a `post_id` column  
  
    public function comment()  
    {  
        return $this->belongsTo('Comment');  
    }  
  
}
```

```
$title = Author::find(1)->comment->title;
```



ONE-TO-MANY

```
class Book extends Eloquent {  
  
    // books table has `author_id` column  
  
    public function author()  
    {  
        return $this->belongsTo('Author');  
    }  
  
}  
  
class Author extends Eloquent {  
  
    public function books()  
    {  
        return $this->hasMany('Book');  
    }  
}
```

```
$my_books = Author::where('firstname', '=', 'Colin')->books;
```



MANY-TO-MANY

```
class Book extends Eloquent {  
    public function tags()  
    {  
        return $this->belongsToMany('Tag');  
    }  
}  
  
class Tag extends Eloquent {  
    public function books()  
    {  
        return $this->belongsToMany('Book');  
    }  
}
```



PIVOTTABLE

```
Schema::create('book_tag', function(Blueprint $table) {  
    $table->increments('id');  
    $table->integer('book_id')->unsigned()->index();  
    $table->integer('tag_id')->unsigned()->index();  
});
```



EAGER LOADING

```
Book::with('author')->get();
```

```
Book::with('author','tags')->get();
```

```
Tag::with('books.author')->get();
```



T1 GENERAL 2010

Income Tax and Benefit Return

Complete all the sections that apply to you in order to benefit from amounts to which you are entitled.

Information about you

Information about your spouse or common-law partner (if you checked box 1 or 2 above)

FORM HANDING

8

Year Month Day

English Français

Enter your social insurance number (SIN) if it is not on the label, or if you are not attaching a label:

Enter your date of birth:

Your language of correspondence: Votre langue de correspondance :

Check the box that applies to your marital status on December 31, 2010:

1 Married 2 Living common-law 3 Widowed
4 Divorced 5 Separated 6 Single

Information about your spouse or common-law partner (if you checked box 1 or 2 above)

(see the guide for more information)

Enter his or her SIN if it is not on the label, or if you are not attaching a label

Canada Revenue Agency Agence du revenu du Canada

Identification

Attach your personal label here. Correct any wrong information. If you are not attaching a label, print your name and address below.

First name and initial

Last name

Mailing address: Apt No - Street No. Street name

PO Box

City

Prov. Terr. Postal code

Telephone number

E-mail address

Relationship to your spouse or common-law partner

BUILDING FORMS

```
 {{ Form::open() }}  
 {{ Form::label('title') }}  
 {{ Form::text('title', 'default', array('class'=>'form-control')) }}  
  
 {{ Form::label('text', 'Enter the full text:') }}  
 {{ Form::textarea('text', 'default', array('placeholder'=>'Enter the text')) }}  
  
 {{ Form::email('email') }}  
  
 {{ Form::checkbox('is_active', 1, null, array('tabindex'=>4)) }}  
 {{ Form::label('is_active', 'Yes') }}  
  
 {{ Form::submit('Send it!')}}  
  
 {{ Form::close() }}
```



HANDLING INPUT

```
$input = Input::get('field','default');
```

```
$input = Input::only('firstname','lastname');  
$input = Input::except('credit_card');  
$input = Input::get('choices.0.name');
```

```
$input = Input::all();
```

```
$input = Input::file('upload_field');
```



FORM MODEL BINDING

```
$book = Book::findOrFail($id);
return View::make('books.edit', compact('book'));
```

```
{{ Form::model($book, array('route'=>array('books.update', $book->id), 'method'=>'PUT') ) }}
{{ Form::text('title')}}
{{ Form::textarea('description')}}
...
{{ Form::close() }}
```





VALIDATION

VALIDATION RULES

```
$data = array(  
    'title' => 'My First Post',  
    'text'  => 'Lorem ipsum dolor sit amet, semiotics banh mi flexitarian.',  
);  
  
$rules = array(  
    'title'      => 'required|min:5',  
    'description' => 'required|max:100'  
);
```



VALIDATION

```
$validator = Validator::make( $data, $rules );
```

```
if ( $validator->fails() )      // ->passes()
{
    $messages = $validator->messages();
    ...
}
```

```
if ( $messages->has('email') )
{
    echo $messages->first('email', '<p>:message</p>');
}
```

```
$messages->get('field');
$messages->all();
```



VALIDATION RULES

```
$rules = array(  
    'firstname' => 'required',  
    'lastname'  => 'alpha',  
    'email'     => 'email',  
    'age'        => 'integer|between:18,65',  
    'agree'      => array('required','accepted'),  
    'website'   => 'url',  
    'password'  => 'confirmed',           // implies matching 'password_confirmation' data  
    'company_id' => 'exists:companies,id',  
    'gender'     => 'in:male,female',  
    'photo'      => 'mimes:jpeg,png|max:100', // kilobytes  
    'postalcode' => 'regex:^[A-Z][0-9][A-Z] ?[0-9][A-Z][0-9]$'  
);
```





LOGGING

LOGGING

Built on top of  Monolog

```
Log::info('This is some useful information.');

Log::info('Information with context', array('context' => 'Other helpful information'));

Log::warning('Something could be going wrong.');

Log::error('OMGWTFBQQ!');
```

 app/storage/logs/laravel.log



QUERY LOGGING

```
$queries = DB::getQueryLog();
```

```
DB::connection()->disableQueryLog();
```





CACHING

CACHE CONFIGURATION

- >  `app/config/cache.php`
- > Drivers:
 - ▶ `file`
 - ▶ `database`
 - ▶ `apc`
 - ▶ `memcached`
 - ▶ `redis`
 - ▶ `array`

CACHE USAGE

```
Cache::put('key', 'value', $minutes);
```

```
$expiresAt = Carbon::now()->addHours(10);
Cache::put('key', 'value', $expiresAt);
```

```
if (Cache::has('key')) { ... }
```

```
$value = Cache::get('key');
$value = Cache::get('key', 'default');
$value = Cache::get('key', function() { return 'default'; });
```

```
$value = Cache::forever('key', 'value');
```

```
Cache::forget('key');
```



ADVANCED CACHE USAGE

```
$books = Cache::remember('all-books', 10, function()
{
    return Book::with('author')
        ->orderBy('title')
        ->get();
});
```



MAIL

MAIL CONFIGURATION

- > Built on top of  SwiftMailer
- >  app/config/mail.php
- > Drivers:
 - ▶ smtp
 - ▶ mail
 - ▶ sendmail

MAIL USAGE

```
Mail::send( array('emails.view.html', 'emails.view.text'), $data, function($message)
{
    $message->to('colin@example.com', 'Colin Viebrock')
        ->subject('Welcome!')
        ->cc('bar@example.com')
        ->bcc('snoop@nsa.gov');

    $message->attach($pathToFile, array('as' => $display, 'mime' => $mime));
});
```



INLINE DATA

```
<body>
  Here is an image 
</body>
```

```
<body>
  Here is raw image data 
</body>
```



QUEUEING MAIL

```
Mail::queue('emails.view', $data, function($message)
{
    $message->to('colin@example.com', 'Colin Viebrock')
        ->subject('Welcome!');
});
```

```
Mail::later($seconds, 'emails.view', $data, function($message)
{
    $message->to('colin@example.com', 'Colin Viebrock')
        ->subject('Welcome!');
});
```





QUEUES

QUEUE CONFIGURATION

- >  `app/config/queue.php`
- > Drivers:
 - ▶ **sync**
local synchronous queuing; no requirements
 - ▶ **beanstalkd**
Beanstalkd:  [pda/pheanstalk](#)
 - ▶ **sqs**
Amazon SQS:  [aws/aws-sdk-php](#)
 - ▶ **iron**
IronMQ:  [iron-io/iron_mq](#)

QUEUE USAGE

```
$data = array('foo' => 'bar');  
Queue::push('MyJob', $data);
```

```
class MyJob {  
  
    public function fire($job, $data)  
    {  
        ...  
    }  
}
```



ADVANCED QUEUE USAGE

```
Queue::push('MyJob@someMethod', $data);
```

```
$date = Carbon::now()->addMinutes(15);
Queue::later($date, 'MyJob', $data);
```



JOB HANDLING

```
public function fire($job, $data)
{
    // Process the job...
    $job->process();
}
```

```
$job->release( $seconds );
```

```
if ( $job->attempts() > 3 )
{
    ...
}
```



QUEUE LISTENING

```
php artisan queue:listen --listen=5 --timeout=60
```

```
php artisan queue:work
```





AUTHENTICATION EVENTS



LOCALIZATION PACKAGES



Pro JavaScript™ Techniques

Resig

Apress

LAYOUT

2

TYPOGRAPHY

AMBROSE / HARRIS

Apress

Prioritizing Web Usability

Jakob Nielsen
Hao Loranger

VOICES THAT MATTER™
WILEY

Object-Oriented JavaScript

[PAC]

FURTHER READING

- 📘 laravel.com/docs
- ⚙️ laravel.com/api
- 🐙 github.com/laravel
- 💬 laravel.io
- ▶️ laracasts.com
- 🐱 github.com/cviebrock



PH

Victor Packard

INT LIBERATION

PAPARONE & JAMIE DILLON WITH LUREN JENISON

O'REILLY

K

Star &
Trachtenberg

O'REILLY

WORK



O'REILLY

LANGFORD

Stunning

PHOTOGRAPHY

SECOND EDITION

O'REILLY

CSS

MASTER

SECOND EDITION

friends of

O'REILLY

Universal Principles of Design

Liliane Kenna Holden, Jim Toliver
zeldman
marcotte

APress

designing with web standards third edition

krug

APress

THE DESIGN OF EVERYDAY THINGS

norman

APress

SECOND EDITION

DON'T MAKE ME THINK! WEB USABILITY

krug

APress



That's All Folks!